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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,295	08/02/2001	Michael Kreindel	KREINDEL=2	3901

1444 7590 10/07/2002

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EXAMINER

FARAH, AHMED M

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 10/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/920,295

Applicant(s)

Micheal Kreindel

Examiner

A. Farah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-20 is/are rejected.
- 7) ☒ Claim(s) 10, 21, and 22 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ | 6) <input type="checkbox"/> Other: |

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DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the analog output 140 as described in page 3, line 18 of the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

OIC
new
Fig 1
shows
element 140
pg # 5

2. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Specification

3. The disclosure is objected to because of the following informalities: in page 3, line 15 of the specification, element 135 is describes as a processor. However, this element is described as an ammeter in succeeding occasions. Correction is required.

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Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 4, 6, 7, 15, 17, and 18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to disclose third and fourth electrodes configured to apply radio frequency radiation to the skin.

6. Claims 3 and 14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to teach or suggest a source of optical radiation configured to irradiate a region of the skin.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The alternative term and/or in line 2 renders the claim indefinite

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pap #5

9. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The alternative term and/or in line 2 renders the claim indefinite.

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Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2, 4-9, 11-13, and 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Doss U.S. Pat. No. 4,679,561.

Doss discloses a system for treating skin conditions such as deep-seated tumors. As to claim 1 of the instant application, his system comprises:

an irradiation source 2 located externally to the skin and powered by a source of radio-frequency radiation;

at least a first pair of a first electrode 7a and a second electrode 7b, the first and second electrodes being configured to apply voltage to the skin (see Fig. 1);

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an electrical meter configured to measure an electrical response of the skin to a voltage applied across the electrodes (see claim 3 of Doss); and

a processor **10** configured to adjust value of a parameter of the radiation based upon a measured electrical response to a voltage applied across the first and second electrodes (Col. 4, lines 45-49 and Col. 5, lines 7-19).

In reference to claims 11 and 12, the claimed method steps are inherent to the treatment system of Doss.

As to claims 2 and 13, Doss teaches that the value of the parameters is adjusted in order to control skin temperature (Col. 3, lines 15-18 and Col. 5, lines 16-19).

As to claims 4 and 15, he discloses plurality of electrodes, including a third electrode **12a** and a fourth electrode **12b** configured to apply voltage to the skin (see Fig 2).

As to claims 5 and 16, the measured parameter is selected from a group of parameters including the irradiation intensity, irradiation frequency, *etc.*, (see claim 1).

As to claims 6 and 17, his electrodes are powered by a source of radio-frequency irradiation (Col. 4, lines 36-37).

As to claims 7 and 18, Fig. 2 of Doss clearly shows that the first **11a** and second **11b** electrodes are the same as the third **12a** and fourth **12b** electrodes.

As to claims 8 and 19, he teaches the measured electrical response of the skin is the skin impedance (Col. 7, lines 5-11).

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As to claims 9 and 20, eh teaches that the processor **10** changes the output (i.e., intensity and/or pulse frequency) of the treatment radiation based on the measured temperature/impedance of the skin (Col. 5, lines 7-19).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doss in view of Hung et al. U.S. Pat. No. 6,391,026 B1.

Doss, described above, does not use optical source to provide the treatment energy. However, Hung et al. teach an alternative method and system for treating skin conditions by applying radio-frequency energy to the skin, attaching electrodes to the skin being treated, and measuring the impedance between the electrodes to monitor the skin temperature (Col. 7, lines 48-53). Hung et al. further teach that the irradiation energy could also be selected from the group comprising ultrasound, light (optical energy), microwave energy, and the like (see the abstract and Col. 7, lines 17-22).

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Therefore, since the use of optical energy for treating skin conditions is known in the medical field, it would have been obvious to one skilled in the art at the time of the applicant's invention to modify the invention of Doss in view of Hung et al. and use optical energy as an alternative treatment energy in treating skin condition.

Allowable Subject Matter

14. Claims 10, 21, and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the following references:

1. Zieve et al. (U.S. Pat. No. 5,190,517), disclose electro-surgical apparatus comprising an impedance sensing network and automated feedback power output control.

2. Gieles et al. (U.S. Pat. No. 4,057,063), disclose a medical catheter comprising an electrode configured to deliver radio-frequency energy to a target tissue; means responsive to the impedance of the tissue adjacent to the electrode; and a means for interrupting the delivery of high voltage to the electrode end portion in response to the measured tissue impedance.

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3. Blewett et al. (U.S. Pat. No. 6,402,742 B1), disclose tissue treatment apparatus comprising a first ablation electrode for delivering RF current to a body tissue; a second electrode in contact with the patient's skin; an impedance measuring circuit adapted to measure the tissue impedance between said electrodes; and a means for terminating the RF current if the measured impedance exceeds a predetermined threshold impedance value.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Farah whose telephone number is (703) 305-5787. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Linda Dvorak, can be reached on (703) 308-0994. The fax number for the Examiner is (703) 746-3368.

A. Farah
Patent Examiner
Art Unit 3739


September 15, 2002


Linda C. M. Dvorak
Supervisory Patent Examiner